

the male of *Harpalus rubripes*, but distinguishable at once from all members of the true Harpalinæ group by the bisetose penultimate joint of the labial palpi and the tapering and pointed apices of the terminal joints of both labial and maxillary palpi. The upper surface is glossy and relucet, and impunctate, except the base of the thorax, which is covered with minute separate punctures. The frontal foveæ (linear and reaching the eye, as in the rest of the genus) are very deep, as is also the transverse suture separating the forehead from the epistome. The elytra are convex, moderate, sinuate near the tip, and furnished with a scutellar striole. The male has a punctured fovea in the middle (towards the base) of the first ventral segment, as in most other species of the genus.

[To be continued.]

BIBLIOGRAPHICAL NOTICE.

Crustacea Isopoda Terrestria per familias et genera et species descripta a GUSTAVO BUDDE-LUND. Havniæ: 1885. 8vo. Pp. 319.

THE publication of this work forms an era in the bibliography of terrestrial Isopod Crustacea. Specialists acquainted with the author's writings and style of description have for six years been looking forward to its appearance; and it is not likely to disappoint their expectations. Mr. Budde-Lund's identifications of species described by other naturalists are occasionally open to revision. In most instances this is due to their descriptions being insufficiently detailed and his failure to obtain access to the typical specimens; but in one case, perhaps in more than one, he has gone astray through quoting a citation at second hand, instead of looking up the reference. The notes published in the 'Annals' for November and December 1882 were apparently not seen by him until his Addimenta were in hand, and consequently the misnomers exposed in those numbers still obtain currency; but as he holds English authors on this order in very slight esteem, he may have deemed the corrections untrustworthy. His list of works cited is tolerably complete, the omissions being mostly unimportant.

Mr. Budde-Lund recognizes four families of woodlice:—Onisci, Ligiae, Tylides, and Syspastidæ.

The Onisci comprise fourteen well-established genera arranged in two sections—the Armadilloidea with eight genera, and the Oniscoidea with six—besides two or three genera referred to as unknown to the author. Of the fourteen genera specified three are gen. nov.,

and of the eight in the first section four names have to be set aside as synonyms. One of these four is thus dealt with in the Additamenta. In the second section a subgenus of the first genus will have to be renamed if the rules of nomenclature be rigorously enforced.

None of the genera in the other families are new. The Ligiae include four genera known to the author, besides two, or perhaps three, which are cited as unknown to him; the name of one of the four needs orthographic emendation. The Tylides and Syspastidae contain one genus apiece; the name of the last genus will have to be sunk in favour of that which it was designed to supersede.

The number of species new to science that are described is 164 or 166, viz.:—of *Armadillo* 27, *Eubelum* 1, *Periscyphis* 2, *Cylloma* 1, *Armadillidium* 12, *Porcellio* 82 or 84, *Platyarthrus* 1, *Oniscus* 26 or 28, *Trichoniscus* 2, *Ligidium* 3, *Ligia* 3, and 4 of *Tylos*.

The following is an enumeration of the total number of the species of all of the genera, combined with synonymic notes:—

Family *Onisci*, Section *Armadilloidea*.—*Armadillo*, Duméril (1816) [*nec* Lat. (1804), *neque* Brisson (1756)], = *Cubaris*, Brandt (1833), enlarged Eaton (1882) [= *Cubaris*, Billb. (1820)], 37 good species and 24 *sedis incertæ*. Mr. Budde-Lund has failed to restore to the first of the species the name assigned to it by Cuvier, and quotes the reference concerning it with hesitation at second hand from Latreille, who blundered unaccountably over Cuvier's unmistakable illustrations of this species. In the discussion of the nomenclature of this genus in Ann. & Mag. Nat. Hist. (1882) p. 361, the possibility of *Cubaris* being precluded from adoption as the name for this genus by its having been preoccupied in Crustacea (as indicated above) was not taken into account. The reviewer, writing at a distance from libraries, is obliged to leave undecided the question whether *Sphærillo* or *Orthonus*, enlarged in its application, may not have to take precedence over *Cubaris*. *Eubelum*, gen. nov., 1 sp.; *Pseudarmadillo*, De Sauss., 1 sp.; *Cercocytonus*, B.-L. = *Periscyphis*, Gerstäcker (1873) [misprinted by the author *Peryscyphis*, *passim*], 3 sp.; *Sphæroniscus*, Gerstäcker, 1 sp.; *Cylloma*, gen. nov., 1 sp.: this genus must be renamed in view of *Cyllomus*, Hal., and *Cyloma*, Sharp. *Eluma*, B.-L. = *Rhacodes*, Koch (1856), and *E. purpurascens*, B.-L. = *Rh. inscriptus*, Koch, the only species. Mr. Budde-Lund, misled by Ebner, quotes *Rhacodes* as a synonym of *Tylos Latreillii*; but its identity with *Eluma* is unquestionable, and therefore this last name must rank as a synonym. The name *Rhacodes* is not invalidated by *Rhacodia*, Hübn. (1816) or Schaeff. (1838). *Armadillidium*, Bdt. & Ratzeb., 31 good sp. and 11 *sedis incertæ*. The number 31 may possibly be open to reduction; some of the structural differences relied upon in the descriptions for the distinction of a few of the species appear to be very like differences dependent upon diversity in age of the individual specimens examined. No indication is afforded as to whether Mr. Budde-Lund's conclusions as to the validity of the species to which these remarks are appli-

cable were based upon observation of living examples, or merely upon the study of museum specimens.

Family *Onisci*, Section *Oniscoidea*.—The author divides into 7 the old genus *Porcellio*, Lat., and leaves it an open question whether the subdivisions should be accounted distinct genera or only subgenera. The subdivisions bear distinctive names and are treated as genera in the text, but are numbered as subgenera. 1st. *Cylisticus*, Schnitzler (1853), 7 sp. 2nd. *Porcellio*, Lat. (1803), restricted B.-L. (1879), 71 good species, 24 ill-characterized, 3 fossil, and 6 "catalogue species." The author ranks *Lucasius myrmecophilus*, Kinahan, amongst the seventy-one species; but the propriety of so dealing with it seems very questionable. His note as to its affinity to *Platyarthrus* might even be amplified. 3rd. *Hemilepistus*, B.-L. (1879), 10 sp., of which two are renamed. 4th. *Metoponorthus*, B.-L. (1879), 35–37 good species and 3–5 *sedis incertæ*. 5th. *Rhyscotus*, gen. nov., renamed, *vice Stenomacrus*, B.-L. MS. (1879), 1 sp. 6th. *Leptotrichus*, B.-L. (1879), 4 or 5 sp.: this name should be abandoned, being preoccupied in zoology, e. g. *Leptotricus* [sic], Cab. Heine (1859), and *Leptothrix*, Menge (1868). 7th. *Bathytropa*, B.-L. MS. (1879), gen. nov., 2 good sp. and 1 nameless. *Platyarthrus*, Bdt., 2 or 3 sp. The author deals with the old genus *Oniscus* in the same manner as with *Porcellio*, dividing it into 5 named subgenera, which are treated as genera in the text. 1st. *Oniscus*, L., restricted, 5 or 6 good species and 13 reputed sp. Of these last *O. fossor*, Koch, is probably nothing but a condition of *O. murarius*, L.; *O. minutus*, Koch, is very nearly related to *Philoscia pulchella*; and the two species named by White should be referred to *Hemilepistus* and *Porcellio* (restricted) respectively, doubtless to be reduced to synonymic insignificance. 2nd. *Philoscia*, Lat., 22 good species, 4 *sedis incertæ*. 3rd. *Alloniscus*, Dana, 8 or 9 sp. 4th. *Lyprobius*, gen. or subgen. nov., 3 sp. 5th. *Scyphax*, Dana, 3 sp. The author's transfer of *S. intermedius*, Miers, to the genus *Philoscia* is inadmissible. *Deto*, Guérin, 2 good species and 2 reputed species. Of the latter *D. Whitei*, Kinahan, probably = *echinata*, Guérin, and was founded upon specimens differing in sex from that figured by the last-mentioned author, because the number of segments armed with spines is larger in the male than in the female. [The reviewer states this from recollection.] *Armadilloniscus*, Ulfjanin, 4 sp. and 2 *sedis incertæ*. *Scleropactes*, gen. nov., 3 sp. Then two genera *sedis incertæ* are referred to:—*Acanthoniscus*, 1 sp., and *Ouracherus*, 1 sp., both named from White's MS. by Kinahan. The former is related to the genus *Armadillo* of this work.

Family *Ligie*.—*Trichoniscus* is divided into 2 subgenera which are named and dealt with as genera. 1st. *Trichoniscus*, Bdt., 8 sp., and 1 in amber. 2nd. *Haplophthalmus*, Schöbl, 2 sp. *Titanethes*, Schjödte [*Titanethus*], 1 sp. and 5 reputed sp. *Ligidium*, Bdt., 5 good sp. and 3 reputed sp. *Ligia*, Fab., 12 sp. known and 5 unknown to the author. *Styloniscus*, Dana, 3 sp. *Stymphulus*, B.-L. MS. (1879) gen. nov., 1 sp. *Euphiloscia*, Packard [1 sp. not cited].

Family *Tylides*.—*Tylos*, Lat., 12 sp. Family *Syspastidae*.—*Syspastus*, B.-L. (1879), = *Helleria*, Ebner (1868), 1 sp. It has already been intimated that the name *Helleria* must be restored to this genus, Ebner having priority of publication over the other authors who have proposed the same name for different genera.

The total number of species described is 404 or 410, of which 312 or 316 are good species and 92 or 94 are species unknown to the author or reputed species. The total number of genera is 36 or (if some be accounted subgenera) 25.

MISCELLANEOUS.

Diagnoses of three new Oriental Mammals.

By OLDFIELD THOMAS, Natural History Museum.

1. *Herpestes auropunctatus birmanicus*, var. nov.

Essential characters of *H. auropunctatus*, but hair shorter, colour darker, and size markedly larger. Skull of type 62·7 millim. long and 34 broad, as compared with 59·0 and 30·0 millim. in the type of *H. auropunctatus*; head and body 392 millim.; tail 214; hind foot 55.

Hab. Pegu (*E. Oates*)—*type*. Burma (*R. G. Wardlaw Ramsay*); Dikoosha, Cachar (*J. Inglis*); Manipur (*A. O. Hume*).

2. *Sciuropterus Davisoni*, sp. n.

Slaty grey above, tipped with orange, pale orange below. Tail brown above, deep orange-rufous below.

Allied to *S. lepidus*, Horsf., and *S. Pearsoni*, Gr., but distinguished from the first by its larger size, much larger and broader ears, and brighter coloration; from the second by its untufted ears: and from both by its differently shaped skull and by the absence in it of the small first upper premolar. Head and body 142 millim.; tail 172; hind foot 36.

Hab. Malacca (*W. Davison*).

3. *Mus Humei*, sp.

Externally similar in almost every respect to *Golunda Elliotti*, Gray, but with the ungrooved incisors and narrow molars of true *Mus*. Front edge of anterior zygoma-root concave, as in *Mastacomys fuscus*, Thos., and some other Australian Muridæ. Head and body 125 millim.; tail 106; hind foot 25·0.

Hab. Moirang, Manipur (*A. O. Hume*).

Figures and full descriptions of these new mammals will shortly be published in the 'Proceedings of the Zoological Society.'